STATE OF MARYLAND

DHMH

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July 10, 2009

Public Health & Emergency Preparedness Bulletin: # 2009:26 Reporting for the week ending 07/04/09 (MMWR Week #26)

CURRENT HOMELAND SECURITY THREAT LEVELS

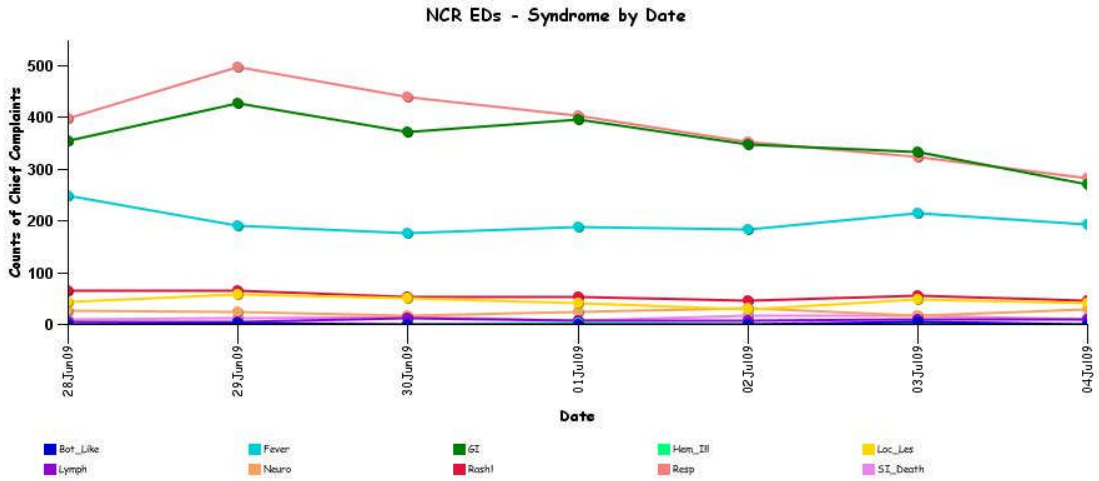
National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics): Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

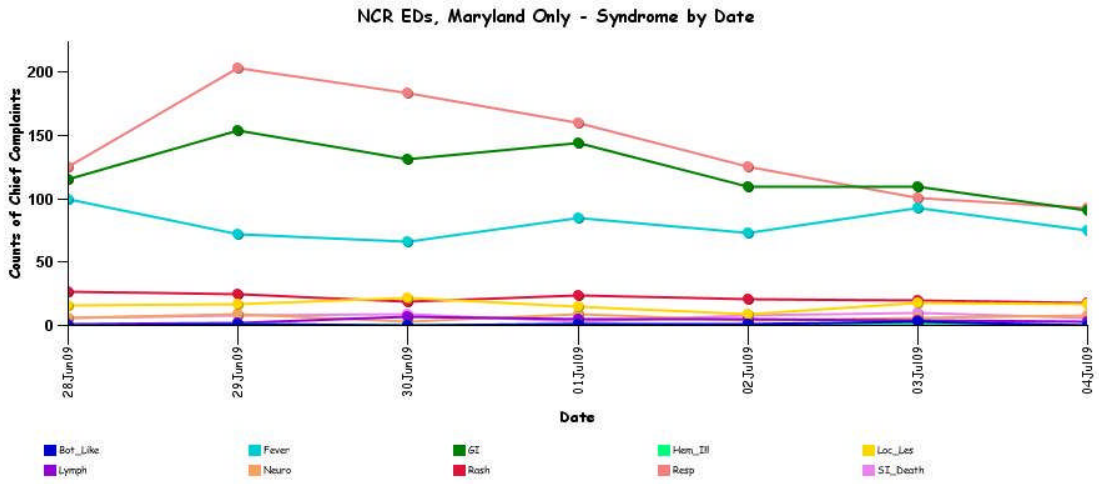
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

****Data for graph of NCR EDs is not complete due to technical issues.**

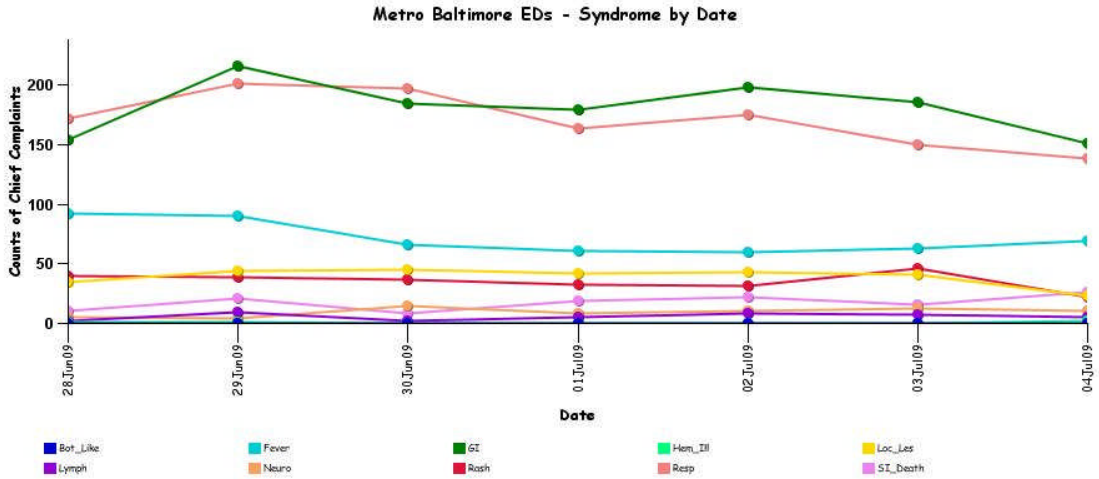


* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system.

****Data for graph of NCR EDs, Maryland Only is not complete due to technical issues.**



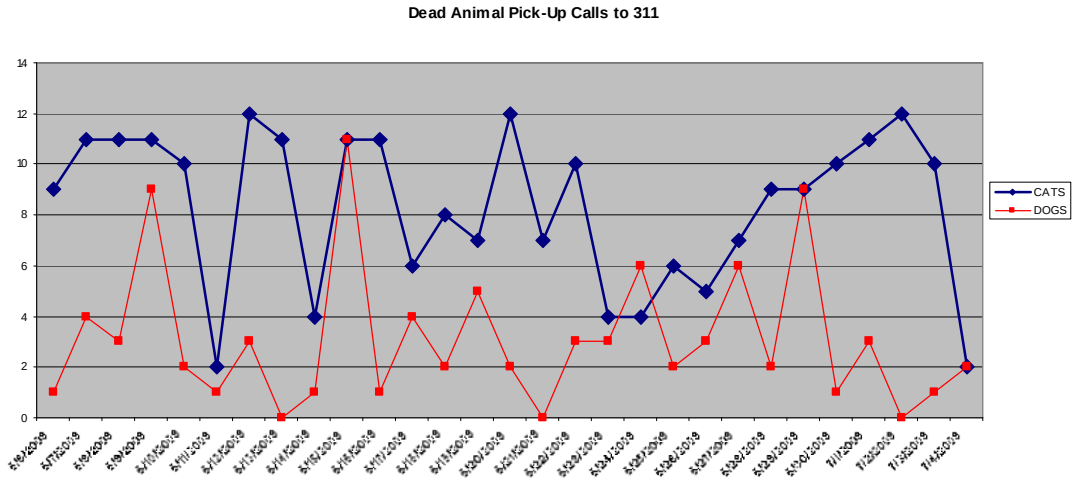
* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system.



* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

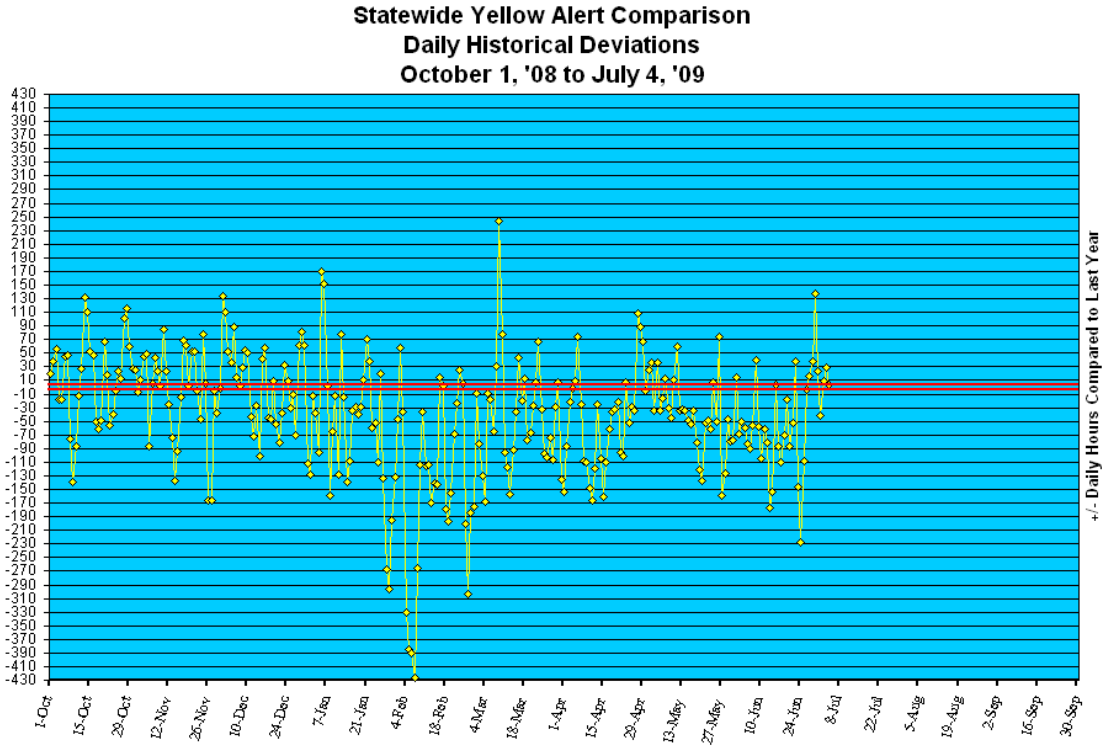
**** Red Alerts are not indicated on this graph.**

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/08.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in May 2009 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (June 28 – July 04, 2009):	14	0
Prior week (June 21 – June 27, 2009):	19	0
Week#26, 2008 (June 22 – 28, 2008):	11	0

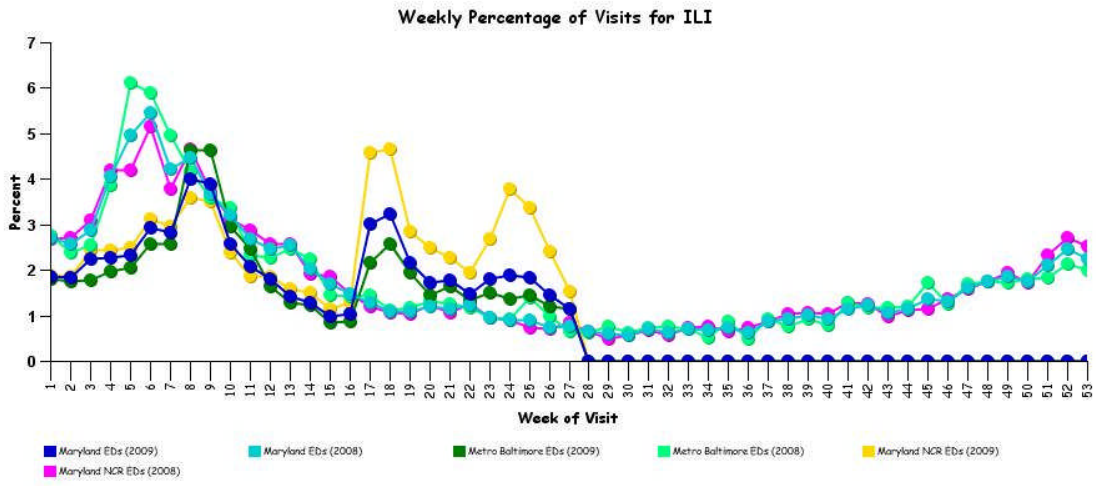
OUTBREAKS: 3 outbreaks were reported to DHMH during MMWR Week 26 (June 28- July 4, 2009):

3 Respiratory illness outbreaks
1 outbreak of INFLUENZA associated with a Camp
1 outbreak of ILI associated with a Nursing Home
1 outbreak of ILI/ PNEUMONIA associated with a Nursing Home

MARYLAND INFLUENZA STATUS: Influenza activity in Maryland for Week 26 is REGIONAL.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



***Graph shows proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.**

PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/flu.htm

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of July 01, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 436, of which 262 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

AVIAN INFLUENZA, HUMAN (Egypt): 02 Jul 2009, The Ministry of Health of Egypt has reported 3 new confirmed human cases of avian influenza A (H5N1). The 1st case is a one year old boy from Domiat Governorate. His symptoms started on 1 Jun 2009. He was admitted to hospital on 2 Jun 2009, where he received oseltamivir treatment. The patient has recovered and was discharged on 9 Jun 2009. The 2nd case is a 4 year old girl from Dakhlia Governorate. Her symptoms started on 5 Jun 2009. She was admitted to hospital on 6 Jun 2009, where she received oseltamivir treatment. The patient has recovered and was discharged on 14 Jun 2009. The 3rd case is a one year old boy from Kaleen District, Kefr El Sheikh Governorate. His symptoms started on 15 Jun 2009. He was admitted to Kefr El Sheikh Fever Hospital on 16 Jun 2009, where he received oseltamivir treatment and is in a stable condition. Investigations into the source of infection indicated that all 3 cases had close contact with dead and/or sick poultry. The cases were confirmed by the Egyptian Central Public Health Laboratories. Of the 81 cases confirmed to date in Egypt, 27 have been fatal.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA A (H1N1) (Worldwide): As of 29 Jun 2009, there have been a total of 70,893 cases with 311 deaths attributable to influenza A (H1N1) infection confirmed to WHO from 108 countries. WHO is not recommending any travel restrictions related to the Pandemic H1N1 2009.

INFLUENZA A (H1N1), ANIMAL HEALTH (Argentina): 01 Jul 2009, Argentina has reported an outbreak of influenza A/H1N1 in a commercial pig farm in the Buenos Aires region. The authorities have qualified this outbreak as "a new emerging disease" in the report. Introduction of the infection was attributed to human to animal transmission from workers at the farm who showed flu signs between 7 and 9 Jun 2009. According to the report, the farm was restocked from their own restocking system in July 2008. The infected pigs showed clinical signs up to 24 Jun 2009 and have now recovered. The report states that in a total population of over 5500 pigs there was 30 percent morbidity but no mortality (OIE, 2009). This is only the 2nd time that a report to OIE qualified findings of influenza A/H1N1 in domestic pigs as "a new emerging disease". The 1st report related to a pig population in Canada in April 2009. Influenza A in pigs usually has a relatively short period of incubation (most often days, rather than weeks). Given the company restocking system and that restocking took place in mid-2008, it would be highly unlikely that this virus was present in this pig population before and remained undetected. The World Organization for Animal Health (OIE) maintains that previous recommendations for OIE member countries remain valid. Namely, to monitor animal populations for signs of clinical diseases in animals; that pork and pork products handled hygienically are not a source of infection; that there is no justification for any ban on pigs and pig products; culling pigs is not recommended for animal health reasons and, if so, that any culling should be carried out according to international animal welfare standards (OIE, 2009a). Accumulated evidence so far suggest that the new variant Influenza A/H1N1 continues to be primarily a human-to-human transmissible infection which generally causes mild disease in infected people.

INFLUENZA A (H1N1), TAMIFLU RESISTANCE (Denmark): 30 Jun 2009, Experts have reported the 1st case of swine flu that is resistant to Tamiflu [oseltamivir], the main drug being used to fight the pandemic. Roche Holding AG confirmed a patient with H1N1 influenza in Denmark showed resistance to the antiviral drug. David Reddy, company executive, said it was not unexpected given that common seasonal flu could do the same. The news comes as a 9 year old girl has become the 3rd to die in the UK with swine flu. It is understood from her doctors at Birmingham Children's Hospital that she had underlying health conditions. It is not yet known whether swine flu contributed to her death. Meanwhile, the Department of Health has announced a big jump in the number of patients in England confirmed with swine flu, up 1604 since 26 Jun 2009, taking the UK total so far to 5937. A Health Protection Agency spokeswoman stated that: "Routine sampling in the UK has shown that there is currently no resistance to oseltamivir or zanamivir." Experts have been using Tamiflu, also known as oseltamivir, in a bid to stop the H1N1 spreading in communities. If taken early, it ensures that symptoms are mild and reduces the chance of a victim giving the illness to someone else. This 1st reported

case of resistance developed in a swine flu patient taking Tamiflu. Mr Reddy stressed that there were no signs of a Tamiflu-resistant strain of H1N1 circulating in the community. This is in contrast to seasonal H1N1 flu, where a Tamiflu resistant strain emerged last year [2009] and is now widely circulating. Experts fear if this were to happen, it could render Tamiflu ineffective in treatment of the swine flu H1N1 virus infection. Another antiviral drug, called zanamivir or Relenza, made by GlaxoSmithKline, is also effective against swine flu. The UK government has been stockpiling these antiviral drugs and currently has enough to treat half of the population, with a contract to bring that up to 80 per cent as soon as possible. Supplies of flu vaccine have also been ordered, and the 1st doses could be administered in autumn 2009. A spokeswoman for the Health Protection Agency said: "The Health Protection Agency continues to watch for antiviral resistance and will be carrying out regular sample testing throughout this outbreak. We have been monitoring antiviral drug resistance since the beginning of this outbreak. Routine sampling in the UK has shown that there is currently no resistance to oseltamivir or zanamivir."

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS

E. COLI O157, BEEF RECALL (Multistate): 02 Jul 2009, At least 12 people, 2 of them suffering kidney failure, have been hospitalized in connection with a possible Escherichia coli outbreak in beef suspected of having sickened people in 9 states, federal health officials said on 01 Jul 2009. The victims may have become ill after eating beef produced by JBS Swift Beef Co. of Greeley, Colorado, the CDC reported. The number of people reported ill so far is 23. The company recalled about 380,000 pounds of beef on 28 Jun 2009 after some illnesses were reported and a government investigation showed a possible connection to the company's product. That recall expanded a 24 Jun 2009 recall of just over 41,000 pounds. CDC said health officials in several states investigating the strain of E. coli found that most ill persons had consumed ground beef, and many reported that it was undercooked. Ground beef with the strain of E. coli was obtained from the home of one person infected. "At least some of the illnesses appear to be associated with products subject to these recalls," CDC stated on its website. The 1st reported illness began on 2 Apr 2009, according to CDC, and the last on 13 Jun 2009. Wisconsin and Michigan appear to be the hardest hit by the outbreak so far, with 6 ill people in each state identified by CDC. Other cases were reported in California, Maine, Minnesota, New Hampshire, New Jersey, New Mexico, and New York. CDC did not specify the states in which people were hospitalized. The agency said that 2 of those who fell ill suffered from hemolytic uremic syndrome, a type of kidney failure. Kidney failure is found in the most severe cases of E. coli. In less serious cases, the potentially deadly bacterium can cause bloody diarrhea and dehydration. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

E. COLI O157, REFRIGERATED COOKIE DOUGH, UPDATE (Multistate): 30 Jun 2009, CDC is collaborating with public health officials in many states, the FDA, and the FSIS to investigate an outbreak of Escherichia coli O157:H7 infections. Preliminary results of this investigation indicate a strong association with eating raw prepackaged cookie dough. Most patients reported eating refrigerated prepackaged Nestle Toll House cookie dough products raw. On 29 Jun 2009, the FDA announced that a culture of a sample of prepackaged Nestle Toll House refrigerated cookie dough currently under recall yielded E. coli O157:H7. The contaminated sample was collected at the firm on 25 Jun 2009. Further laboratory testing is underway to determine whether the E. coli strain in the product matched the strain causing the outbreak. As of Tue 30 Jun 2009, 72 persons infected with a strain of E. coli O157:H7 with a particular DNA fingerprint have been reported from 30 states. Of these, 51 have been confirmed by an advanced DNA test as having the outbreak strain; these confirmatory test results are pending on the others. The number of ill persons identified in each state is as follows: Arizona (2), California (3), Colorado (6), Connecticut (1), Delaware (1), Georgia (1), Iowa (2), Illinois (5), Kentucky (2), Massachusetts (4), Maryland (2), Maine (3), Minnesota (6), Missouri (1), Montana (1), North Carolina (2), New Hampshire (2), New Jersey (1), Nevada (2), New York (1), Ohio (3), Oklahoma (1), Oregon (1), Pennsylvania (2), South Carolina (1), Texas (3), Utah (4), Virginia (2), Washington (6), and Wisconsin (1). (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

ANTHRAX, HUMAN, BOVINE (India): 02 Jul 2009, Official sources said 3 fresh anthrax cases were detected on 01 Jul 2009 from Orissa's Sundargarh, barely a week after 12 people in the district tested positive for the disease. All 3, aged 55, 30, and 50, hailed from Dhudinua village of the district, nearly 80 km from Rourkela. The patients were undergoing treatment at Balishankara primary health centre, the sources said, adding that a medical team from the district headquarters has rushed to the village. A similar report of an anthrax outbreak was reported last week [27 Jun 2009] in Pindapathar village of the district, where 12 people were found affected by the disease. The tribal people living in remote villages of the district, particularly in Subdega and Balishankara blocks, often eat meat of dead domestic animals, they said, adding that an awareness campaign was launched among them. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

E. COLI O157, GROUND BEEF (Canada): 02 Jul 2009, The Canadian Food Inspection Agency is warning people in London, Ontario, about 200 kilometers south west of Toronto, not to eat a certain ground beef product after 3 children in the area have become ill with an Escherichia coli infection. Over the last 5 days, the Middlesex-London Health Unit has received reports of 3 children with E. coli O157:H7 infection, the agency said in a news release on 28 Jun 2009. The federal health agency said that to have 3 confirmed cases over "such a short time frame is unusual". In 2 of the cases, the common food consumed was a spiced ground beef product called kofta purchased on 14 and 15 Jun 2009 from the Westmount Halal Food Store in London. The agency said the source of the 3rd child's infection is currently unknown. That child's family also eats halal food but did not purchase any food from the same store. The public is being advised not to eat any ground beef or kofta products purchased from the store between 2 Jun and 28 Jun 2009. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

BRUCELLOSIS, LIVESTOCK, HUMAN (Russia): 01 Jul 2009, Brucellosis has been discovered in 2 districts, Lyubinskiy and Sherbakulskiy in Zameletenovka, Astrahanovka, Chadskoye, and Sherbakul villages. Veterinarians discovered brucellosis in sheep, cows, and swine. Quarantine measures have been introduced in some of the most at risk villages. The press secretary of the Russian Sanitary Surveillance Service, Elena Dayrukina, said that 300 people who had possible contact with ill animals went through medical check ups. Out of the 300, 39 were positive for brucellosis and 8 of them were treated in hospital. Those with suspected brucellosis were sent to Omsk infections diseases hospital. (Brucellosis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

PLAGUE, BUBONIC (Algeria): 01 Jul 2009, Countries in North Africa are boosting precautionary measures in heightened efforts to prevent bubonic plague from spreading to their territories. According to the London-based Al-Quds Al-'Arabi, Algeria has documented 50 cases of the plague, some within 15 kilometers of the border with Libya, where 2 people have died of the disease. As a result, Algiers has tightened medical surveillance on its borders with Libya. Officials there fear that Bedouin are crossing the borders from the Illizi province into Libya and passing the disease back into Algeria, according to local Algeria and Moroccan press. Rodents in the area have been seen bearing the disease, Aphaluck Bhatiasevi, a spokeswoman for the World Health Organization (WHO), told The Media Line. "But it hasn't infected people for 25 years," she said. "They're still investigating the cause. It's likely exposure to fleas. It's not pneumonic plague, which can be transmitted from one person to the other. It stops at the person who gets infected." Health authorities in Egypt, Tunisia, Algeria, and Morocco are also taking extra measures to contain the disease, Al-Quds Al-'Arabi reported. Earlier in June 2009, Egypt closed its border with Libya following confirmed reports that around 13 people were infected with the bubonic plague in the Libyan coastal city Tubruq, 93 miles from the Egyptian border. The Libyan media reported between one and 3 fatalities from the disease, and Bhatiasevi said the Libyan authorities were being extremely supportive, cooperative and open with the investigation. She added that they have also launched awareness campaigns in the area. Algeria and Libya share a border 982 kilometers long, and a large, unsupervised passage of people and goods flow through the border daily. Some believe the outbreak could be connected to the consumption of camel meat or caused by camel fly bites. Outbreaks connected to the consumption of contaminated camel meat were reported in the past in Libya, Jordan, and more recently in Saudi Arabia in 2005. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, BOVINE (Canada): 30 Jun 2009, One animal in one cattle herd on one western Saskatchewan farm is the lone confirmed case of anthrax poisoning so far this spring and summer [2009] in western Canada's livestock herds. The Canadian Food Inspection Agency said 26 Jun 2009 that this case was reported 3 Jun 2009 on a farm in the RM of King George, in the Rosetown/Outlook area. The spores that cause anthrax poisoning are known to exist in soil across the Canadian Prairies, and findings of anthrax are "common", CFIA said. Despite the low incidence so far this grazing season, CFIA still advised producers to consult with their veterinarians about making anthrax vaccinations part of a regular herd-health maintenance program should they reside in a known anthrax-infected area. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

HEMORRHAGIC FEVER (Democratic Republic of the Congo): 29 Jun 2009, Eight cases of hemorrhagic fever have been reported since May 2009 in the Djolu health area. According to the provincial medical inspector of Equateur, 4 deaths have already been reported among persons under treatment, as reported by radio okapi.net. Patients have presented with the same signs: fever with bleeding from the nose and anus and vomiting with blood. But according to Dr Augustine Makaya, provincial medical inspector, the viral etiology of this disease is not yet known. Blood samples taken 24 Jun 2009 on patients by a team from Medecins sans Frontieres [Doctors without Borders] in Kisangani were sent on the same day by plane to Kinshasa. Pending the identification of this virus, the provincial branch of WHO / Equateur has made a lot of drugs available to the Djolu Health department, said the same source, to monitor health care personnel and family members who were in contact with patients. (Viral Hemorrhagic Fevers are listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (India): 29 Jun 2009, Chikungunya cases are on rise in Sirsi, Siddapur, Yellapur, and Mundgod taluks. Most of the hospitals in Sirsi town are flooded with chikungunya patients. The doctors said that the places are having many cases of chikungunya and viral fever. According to sources, in Yellapur taluk, out of 11,306 patients tested, 176 are suffering from chikungunya and one has dengue fever, most of the patients take treatments at private hospitals, said medical officer Dr GN Ashok Kumar. Chikungunya or viral fever cases have been reported from most of the villages in the Mundgod taluk. Many patients are even unable to visit hospital due to weakness. Lack of rain is the reason attributed to the increase of chikungunya, dengue, and viral fevers. These diseases are hindering the farm activities in all these taluks. (Emerging Infectious Disease are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://bioterrorism.dhmh.state.md.us/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

Multistate Outbreak of *E. coli* O157:H7 Infections Linked to Eating Raw Refrigerated, Prepackaged Cookie Dough – Additional updated information can be found at: http://www.cdc.gov/ecoli/2009/0622.html

Multistate Outbreak of *E. coli* O157:H7 Infections Associated with Beef from JBS Swift Beef Company– Additional updated information can be found at: http://www.cdc.gov/ecoli/2009/0701.html

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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